

USACHPPM
HEALTH INFORMATION OPERATIONS (HIO) UPDATE

02 April 2004

The HIO Update provides information regarding global medical and veterinary issues of interest to the United States (US) Army. The update does not attempt to analyze the information regarding potential strategic or tactical impact to the US Army and as such, should not be regarded as a medical intelligence product. Medical intelligence products are available at <http://mic.afmic.detrick.army.mil/>. The information in the HIO Update should provide an increased awareness of current and emerging health-related issues.

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HOT TOPICS

AIDS Risk 'Cut by Circumcision'

26 March – BBC News reported men who have been circumcised may be six times less likely to contract the [HIV virus](#) than uncircumcised men, research carried out in India suggests. The study in the Lancet journal says that the thin foreskin tissue could be highly prone to HIV infection. The latest study, which backs up earlier research in Africa, was carried out among 2,000-plus men in India. Researchers say circumcision only reduces the risk of HIV infection - other sexual diseases are not affected. They believe this may be because the foreskin contains cells that the virus specifically targets. [View Article](#)

Antibiotics in the Environment

24 March – Eurekalert reports that scientists from the Department of Soil, Water, & Climate at University of Minnesota have developed a simple method to quantify two types of antibiotics in animal manures, and surface and ground waters. Chlortetracycline and tylosin antibiotics are commonly used for growth promotion in swine production. In general, as much as 90% of antibiotics fed to food animals are excreted unchanged in animal feces and urine. Researcher Kudlip Kumar explains that these animal wastes when applied to fields present a potential for the spread of antibiotics in the environment via non-point source pollution. There is an increasing concern that sub-therapeutic feeding of antibiotics in animal agriculture is increasing microbial resistance in the environment. On repeated manure application there is some potential for increase in antibiotic resistant bacteria in the environment. [View Article](#)

Benefits to Newborns from Federal Ban on Insecticides

24 March – Eurekalert reported that a federal ban on two insecticides has resulted in a significant reduction in their impact on newborns' birth weight and length, according to a new study funded by the National Institute of Environmental Health Sciences of the National Institutes of Health, the U.S. Environmental Protection Agency, and other private foundations. The study measured the impact on fetal growth of two insecticides - chlorpyrifos and diazinon - whose use in households was banned by the federal government starting in 2000. The insecticides had been among the most commonly-used agents for residential pest control. In the study, researchers measured the levels of the two insecticides in blood drawn from the umbilical cords after delivery, both before and after the ban, and correlated those levels with the babies' birth weight and length. [View Source](#)

Exploiting Nature's Weapons in the Fight against Diabetes

24 March - Scientists at the University of Ulster are harnessing molecules produced naturally in the body to tackle one of the world's major health problems - diabetes. Their novel approach involves bioengineering gut peptides – molecules produced in the human intestine and released in response to feeding – to prolong their duration of action and, therefore, make them work more effectively. The research by the internationally-recognized Diabetes Research Group at the University's Coleraine campus could lead to the development of new therapies to combat Type 2 diabetes. In essence, the Group is exploring ways to make new therapies based on the architecture of gut peptide molecules. Using bioengineering technologies the scientists are able to produce long-acting molecules, which are not quickly degraded in the circulation, giving them more time to perform their tasks which include stimulation of insulin secretion and glucose metabolism as well as suppression of appetite. The anticipated outcome is that these new bioengineered molecules will lower the blood glucose levels – the desired effect of any anti-diabetic drug. [View Article](#)

Ixodid and *Argasid* Tick Species and West Nile Virus

01 April – The journal Emerging Infectious Diseases published a study where researchers write that control of [West Nile virus](#) (WNV) can only be effective if the vectors and reservoirs of the virus are identified and controlled. Although mosquitoes are the primary vectors, WNV has repeatedly been isolated from ticks. Therefore, tick-borne transmission studies were performed with an ixodid (*Ixodes ricinus*) and an argasid tick species (*Ornithodoros moubata*). Both species became infected after feeding upon viremic hosts, but *I. ricinus* ticks were unable to maintain the virus. In contrast, *O. moubata* ticks were infected for at least 132 days, and the infection was maintained through molting and a second bloodmeal. Infected *O. moubata* ticks transmitted the virus to rodent hosts, albeit at a low level. Moreover, the virus was nonsystemically transmitted between infected and uninfected *O. moubata* ticks co-fed upon uninfected hosts. Although ticks are unlikely to play a major role in WNV transmission, findings suggest that some species have the potential to act as reservoirs for the virus. [View Article](#)

Lack of Money Thwarts U.N. Effort to Combat AIDS

28 March – HealthDay reports that ambitious plans to combat AIDS in poor countries are failing due to shortages of money and patent fights that have prevented antiretroviral drugs from reaching more than 90 percent of the people who need them. That assessment comes three years after the United Nations announced a worldwide offensive against AIDS, the newspaper says. The drugs have helped to dramatically cut death rates in the United States and other Western countries. But the campaign to distribute the medicines to needy nations has been hampered by a lack of financial contributions from wealthier nations, including the United States, to the U.N. fund created to finance the effort. The result: Only an estimated 300,000 people in the world's poorest countries are getting the drugs, while six million people need them. The delays are likely to continue unless wealthy nations contribute much more money to the fund. [View Source](#)

More Evidence Found of How Vitamins Prevent Cancer

28 March – Reuters reported Vitamin E protects against at least two common forms of [cancer](#) -- prostate and bladder -- but popping supplements is probably not the best way to get the vital nutrient, researchers said. Two studies found that people who either ate the most vitamin E containing food or who had the highest levels in the blood were the least likely to have cancer. But the researchers also noted that there are several different forms of vitamin E and the kind you eat -- in this case alpha

tocopherol -- is key. The best-absorbed form of alpha tocopherol is not found in supplements but in foods such as sunflower seeds, spinach, almonds and sweet peppers. [View Article](#)

Mouse Model Mimics Real-World Plague Infection

24 March – Eurekalert reports that an experimental plague vaccine proved 100 percent effective when tested in a new mouse model for [plague](#) infection developed by scientists at Rocky Mountain Laboratories (RML). The scientists developed their model to mimic the natural transmission route of bubonic plague through the bites of infected fleas. The flea-to-mouse model provides a more realistic test setting than previously used methods, enabling a better assessment of a vaccine's ability to protect against a real-world challenge. In their study, the RML scientists first infected fleas by letting them feed on blood containing a virulent strain of *Yersinia pestis*, the bacterial agent of plague. The infected fleas then fed on 15 mice that had been inoculated with the experimental vaccine containing an adjuvant (an immune booster). For comparison, the researchers let infected fleas also feed on a second group of 15 mice that had received only the adjuvant. Although all 15 vaccinated mice remained symptom-free even after multiple feedings by the fleas, plague occurred in 14 of the 15 mice that had received the adjuvant alone. [View Article](#)

New Nanosensors a Body Can Live With

30 March - For two decades, chemists have been making great strides in analyzing the biological functions that drive living cells. But many biological substances still remain undetectable. That will soon change, thanks to a biological sensor being developed by University of Arizona chemists. Their new sensor platform has many capabilities that current ones lack. The new nanometer-sized hollow shells of phospholipids self-assemble. The self-assembled phospholipids are then "polymerized," or chemically linked, to form the sensors. Since phospholipids are the major component of cell membranes, they are biocompatible. A hundred can be released inside a cell without affecting cellular functions. The shells' hollow shape allows them to safely hold water-soluble -- or even toxic -- indicator dyes and enzymes that can be used to ferret out the details of chemistry inside living cells. In short, chemists can select proteins that interact with specific ions, molecules or groups of molecules, stick them into nanoshell membranes, and send them inside the cell to sniff out specific substances. The group has monitored oxygen using the new sensor, and his team is also constructing a glucose sensor, which may help in fighting diabetes. [View Article](#)

Ribozyme Package Effective Against Hepatitis B Virus

23 March - Penn State College of Medicine researchers have developed a tiny package that searches for and destroys up to 80 percent of [hepatitis B](#) virus in the livers of mice. Hepatitis B virus (HBV) attacks the liver and can cause lifelong infection, liver cancer and, eventually, death. Although HBV is treated with drugs, it cannot be cured. The chronic disease affects about 1.25 million Americans, 20 percent to 30 percent of whom acquired the virus in childhood. HBV is transmitted via blood or sexual activity, but also may be transmitted from mother to child during childbirth. Once infected, the virus continues to reproduce in the liver. Once at the liver cell, the package is released into the cell and finds its way to the cell nucleus, where the active ribozymes are produced. The ribozymes destroy the viral RNA's ability to produce proteins by cleaving, or cutting, the viral RNAs, rendering them useless. Proteins are critical to virus replication. [View Article](#)

Scientists Uncover Malaria's Genetic Workings

25 March – Health Day News reported scientists have discovered four proteins that affect the ability of the parasite that causes [malaria](#) to survive in mosquitoes. The finding could lead to new ways to

prevent the mosquito-borne disease, which causes an estimated 2.7 million deaths worldwide each year, the researchers report. Two of the proteins protect the Plasmodium parasite from being destroyed as it multiplies in a mosquito's gut, say researchers at the European Molecular Biology Laboratory in Heidelberg, Germany. The other two proteins, meanwhile, help the mosquito's immune system kill the parasite. The discovery helps explain why some mosquito species transmit malaria, while others do not. [View Article](#)

Sedative May Offer New Direction in Colon Cancer Treatment

30 March – Eurekalert reported that a barbiturate once commonly used to treat anxiety may play a role in controlling the spread of colon cancer, say researchers from The University of Texas M. D. Anderson Cancer Center. Their experimental model of colon cancer -- work done in cell cultures and animal studies -- demonstrates that the drug, Nembutal, can suppress activity in colon cancer cells the same way it inhibits certain kinds of neurotransmissions in the brain and central nervous system. The results, presented at the annual meeting of the American Association for Cancer Research, suggest a novel approach to treatment of cancers now known to have neurotransmitter receptors on the outside of their cells. That includes, to date, colon and some ovarian cancers. Nembutal is a member of the barbiturate family of drugs commonly known as "downers" -- acting just like inhibitory GABA neurotransmitters, and therefore is useful in controlling such behavioral and physical ailments as sleeplessness, anxiety, tension, high blood pressure and convulsions. The investigators tested the drug in mice that had been injected with colon cancer known to express the GABA receptor, and found that four out of 10 mice treated with Nembutal developed primary tumors, compared to eight of 10 mice that did not receive the drug. And the cancer spread to the liver in only 20 percent of Nembutal treated mice, compared to 80 percent of control animals. [View Article](#)

Tai Chi Tames Chronic Health Conditions

25 March – Health Day News reported the ancient Chinese practice of Tai Chi appears to improve balance, flexibility and cardiovascular health in people with such chronic health problems as heart failure, hypertension, arthritis and multiple sclerosis. In a review article by researchers at Tufts-New England Medical Center in Boston, analysis of 47 studies that examined the health effects of Tai Chi in patients with various chronic health conditions was carried out. Cardiovascular and respiratory function improvements were noted in healthy people and those who had undergone coronary artery bypass surgery as well as people with heart failure, hypertension, acute myocardial infarction, arthritis and multiple sclerosis. Benefit was also found for balance, strength, and flexibility in older subjects; falls in frail elderly subjects; and pain, stress and anxiety in healthy subjects. The article appears in the Archives of Internal Medicine. [View Article](#)

Warning on Avian Flu Vaccination

25 March – BBC News reported the vaccination of chickens against [avian flu](#) could lead to new strains which are a greater danger to humans. China and Indonesia are among countries vaccinating millions of birds against the virus. But experts have said the flu virus may now mutate in vaccinated chickens into a form that could spread from person to person, New Scientist magazine reports. The World Health Organization (WHO) said vaccination remained one important way of fighting the flu outbreak. By mid-March, the WHO had reported 12 confirmed cases in Thailand alone, eight of them fatal. The current form of H5N1 bird flu can spread from birds to humans, but not from person to person. But scientists warned the virus is probably still circulating among vaccinated birds and could evolve into a form which can spread by human to human contact. This is because flu vaccines are not 100% effective and some viruses can replicate in animals' or birds' bodies and continue to spread in "silent epidemics". [View Article](#)

FOCUS ON EPIDEMIOLOGY

Infections Related to the Ingestion of Seafood Part I: Viral and Bacterial Infections

01 April – The Lancet published an article on [foodborne diseases](#), which cause an estimated 76 million illnesses in the USA each year. Seafood is implicated in 10–19% of these illnesses. A causative agent can be traced in about 44% of seafood-related outbreaks, viruses accounting for around half of these illnesses. Although viruses are the most common cause of seafood-related infections, most hospitalizations and deaths are due to bacterial agents. A wide variety of viruses, bacteria, and parasites have been implicated in seafood-related outbreaks, which are reported worldwide. The factor most commonly associated with infection is consumption of raw or undercooked seafood. People with underlying disorders, particularly liver disease, are more susceptible to infection. The first part of this two-part review summarizes the general incidence of seafood-related infections and discusses the common viral and bacterial causes of these infections. For each agent, the microbiology, epidemiology, mode of transmission, and treatment are discussed. In the May issue of the journal parasites associated with seafood consumption, the safety of seafood, and the measures put in place in the USA to increase its safety will be discussed. [View Article](#) (must register)

DoD-GEIS: Prevention of Healthcare-Associated Pneumonia

30 March: A new guideline was just published in the [MMWR](#) for prevention of healthcare-associated (“nosocomial”) pneumonia, which results in high morbidity and mortality. The guideline’s stated aim is to reduce incidence of pneumonia and other severe, acute lower respiratory tract infections occurring in acute-care hospitals, other health-care settings including ambulatory and in other healthcare facilities. Antibiotic resistance issues are addressed, including lab-based surveillance. Legionnaire’s disease prevention and considerations for initiating an investigation for the source of Legionella are included. Typically this is an issue for inpatient and outpatient units dealing with immunocompromised patients such as hematopoietic stem cell transplant (HSCT) recipients. For prevention of respiratory syncytial virus (RSV) infection there is a new recommendation to consider monoclonal antibody (palivizumab) for high-risk infants and children. New recommendations for influenza prevention in a unit with an influenza outbreak add oseltamivir for prophylaxis of patients without influenza and oseltamivir and zanamivir as treatment for patients acutely ill with influenza. Patients ill with influenza and treated with antivirals are recommended to reduce contact with those at high risk of influenza complications; the risk considered is that of the high risk, but healthy, individual potentially exposed to antiviral-resistant strains. Appropriate vaccination recommendations are included for several diseases. There is also new material on pertussis, adenovirus, parainfluenza, bacterial pneumonia and prevention of pneumonia related to ventilator equipment and settings and mechanical ventilation practices. For SARS, other guideline documents are referenced. These guidelines are likely to have impact on all healthcare settings; medical facilities should review infection control and related practices accordingly. *For information on hot topics such as Influenza (avian and human), Leishmaniasis, West Nile Virus and severe respiratory syndromes, including SARS – see the DoD-GEIS website <http://www.geis.ha.osd.mil>.*

USEUCOM

AIDS on the Increase in Germany

25 March – AFP reported that the number of [AIDS](#) cases in Germany is on the rise because people are having more unprotected sex, a study by the Robert Koch institute for infectious diseases showed. The number of new diagnoses with HIV, the virus that causes AIDS, increased to 1,958 in 2003, up from 1,716 in 2002 and 1,470 in 2001. Gay men represented the largest group of new cases at 41 percent, with most of them in large cities such as Berlin, Hamburg, Cologne and Frankfurt. Twenty-two percent of new infections were among women. Some 43,000 people in Germany were infected with the virus at the end of 2003, with about 5,000 ill with AIDS. Some 600 people died of the disease last year. The institute said high-risk behavior such as sex without a condom had led to the increase. Only 73 percent of those under the age of 45 polled said they had used a condom at the beginning of a new relationship, down five percentage points from 2000. It added that condom sales were also down in Germany, to 189 million sold versus 207 million in 2000. [View Source](#)

Gulf War 'Link to Miscarriages'

24 March – BBC News reported women whose partners served in the Gulf in the early 1990s may have been more likely to suffer miscarriages in the years that followed, a study suggests. But researchers have rejected claims their babies were more likely to have suffered birth defects. They also found no evidence to suggest the women had higher stillbirth rates. The findings, published in the International Journal of Epidemiology, are based on a survey of 44,000 British veterans and their families. Researchers from the London School of Hygiene and Tropical Medicine questioned veterans who served in the Gulf between August 1990 and June 1991 as part of the Ministry of Defence funded study. They also questioned armed forces personnel who were not sent to the Gulf. They found that women whose partners served in the Gulf were 40% more likely to have suffered a miscarriage before November 1997. The finding backs up a similar study carried out on US veterans of the war, published in 2001. [View Article](#)

Hepatitis Outbreak in West Siberia Puts 45 in Hospital

30 March – Mos News reported a mass outbreak of [Hepatitis](#) A has been registered in the Tyumenskaya region of Western Siberia, with 45 people hospitalized. Of those hospitalized on suspicion of being infected in the Arbatsky district of the region, 33 are children. Physicians say the cause of the outbreak was most likely drinking water. The area has very poor water pipes, and water is not disinfected before reaching households. After the outbreak was registered, 250 vaccines and 1000 doses of immune globulin were sent to the region. Currently, the regional authorities are looking at using the provisional underground water supply, because it is much less likely to be infected. The U.S. Center for Infectious Diseases has assessed that Russia has an intermediate prevalence of hepatitis A. Only the United States and Australia have a low prevalence. Meanwhile, in recent months, over 180 cases of hepatitis A have been registered in the south Russian region of Karachaevo-Cherkessia. [View Article](#)

Ireland Enacts World's Toughest Anti-Smoking Law

29 March – HealthDay reports that Ireland has put into place the world's toughest anti-smoking law, banning [tobacco use](#) in all enclosed workplaces, as well as in pubs and restaurants. The new law, which has the strong support of Health Minister Michael Martin, took effect at midnight Monday. Companies that fail to comply with the ban, which extends to company cars, could be fined as much as 3,000 euros (\$3,625), *Bloomberg.com* reports. The law is part of a get-tough policy on smoking and unhealthy lifestyles across Europe. Measures have included restricting cigarette and alcohol advertising on TV, and promoting campaigns that urge people to exercise often and eat more fruits

and vegetables. The Netherlands banned smoking on public transit systems and in offices on Jan. 1, and Norway and Sweden plan to outlaw smoking in bars and restaurants by early next year. New York City banned smoking in most workplaces in March 2003, the news service reports. [View Source](#)

Tick-borne Encephalitis Emerges in Norway

01 April – The Lancet published a study where Norwegian scientists have reported that an unexpectedly large number of dogs in the Arendal area of southern Norway have antibodies to [tick-borne encephalitis](#) (TBE) virus, suggesting that TBE—which also affects people—has taken a hold in the region. Dogs are commonly fed on by ticks and are therefore likely to come into contact with the TBE virus if it is present. Csángó's team collected serum samples from 317 dogs (65 different breeds) and used enzyme-linked immunosorbent assays to look for the corresponding IgG antibodies. Unexpectedly, 16.4% were found to have them. [View Article](#)

UK: Antibodies to West Nile Virus, Usutu Virus, and Sindbis Virus in Wild Birds

30 March – ProMED reports that viruses causing potentially deadly diseases are entering Britain, a leading expert has claimed. Professor Ernest Gould, who works at the Centre for Ecology and Hydrology in Oxford, says he has found signs of such viruses in birds. He carried out tests on 30 species of birds across the country and found antibodies in 50 percent of birds. But Professor Gould said there was no evidence of any risk to animals or humans. "We have found antibodies to West Nile virus, Usutu virus, and Sindbis virus. . . Infection in these birds was sub-clinical, which means they were healthy, but the antibodies suggest they have been exposed to these diseases." [West Nile virus](#) is transmitted by mosquitoes which feed on virus-infected birds. It is normally found in Africa but has recently emerged in the United States. While most humans who contract the virus by mosquito bite do not suffer illness, it can cause encephalitis, meningitis, and death. Usutu virus is also transmitted by mosquitoes. This disease has rarely been found outside Africa. However, an outbreak in Austria in 2001 killed thousands of birds. The risks to humans are unknown. Sindbis virus was recently discovered in birds in Scandinavia. It can cause fever in humans and has been linked to a form of arthritis. [View Article](#)

USCENTCOM

Diarrhea Affects 237 People in Kazakhstan

28 March – ProMED reported that more than 200 people are currently suffering symptoms of acute [diarrhea](#) in the village of Keniyak in the Aktyubinskaya region. According to Interfax news agency, 156 of them are children; and according to the emergency situations agency, 17 hospitalized patients, including 13 children, are being discharged. At present, 110 people are hospitalized and 100 more people are being treated in the outpatient department. The first cases of intestinal infection were revealed last Mon 22 Mar 2004 in the village of Keniyak. It has been established that the cause of the outbreak was contamination of drinking water with sewage. Water testing revealed E. coli in 7 cases out of 15. According to the emergency situations agency, the water system is being disinfected and cultures are being taken from patients. [View Source](#)

Iraqi Docs Forced To Participate in Human Rights Abuses

24 March – Yahoo News reported Iraqi doctors were forced to cut off ears, falsify reports on torture and participate in other human rights abuses during Saddam Hussein's regime, a survey of physicians there found. Fewer than 10 percent of the 98 doctors surveyed said they had performed such abuses, but their responses indicated they believed human rights abuses by other physicians were not uncommon. The results appear in Wednesday's Journal of the American Medical Association. About half the respondents said they believed other Iraqi physicians were frequently forced to amputate ears as punishment and falsify medical reports. Seventeen percent said they believed doctors were frequently forced to remove organs from dead and living patients without consent. [View Article](#)

Troops' Mental Health Surveyed In Iraq

26 March – Yahoo News reported for the first time ever, troops stationed in a combat zone have been surveyed to determine their mental health. The survey, conducted by the US Army, showed that last year soldiers suffered severely from low morale, high stress and a lack of support. Along with the release of the groundbreaking report, the Army announced that mental health professionals are forced into giving inadequate care in Iraq, due to anti-depressant and sleeping drug shortages. The survey showed that 52% of soldiers in Iraq report having a low personal morale, 72% of soldiers reported that their units morale was low and the cohesiveness of the units was also low. Morale has been a major factor in soldier suicides in Iraq. [View Article](#)

USNORTHCOM

California Officials Blame Immigrants for San Gabriel's Tuberculosis Rate

March 25 – The Miami Herald reported [tuberculosis](#) rates in the San Gabriel Valley, California are the second highest in the county, due largely to Asian immigrants infected in other countries. In 2002, the Valley reported 194 cases of tuberculosis, second only to Los Angeles city's 249 cases. In a report released last month by the Asian Pacific American Legal Center of Southern California, 2000 census data showed that Asian and Pacific Islanders are the fastest-growing major racial group in the county, and the hub of that growth is in the Valley. The good news is that the Valley's TB rate -- along with the county's -- is dropping. County rates for 2002 were 1,025. While Los Angeles is showing a drop in TB cases, public health experts are quick to remind the public that tuberculosis is highly contagious and that one person can make one million people sick with the disease. [View Report](#)

Fructose Suspected as Latest Fat Factor

26 March – The Washington Times reported researchers now say the widespread use of the liquid corn sweetener, fructose, in soft drinks, baked goods and juice drinks might be a big factor in the swift rise in [obesity](#) in the United States. The study points out that HFCS is used to sweeten all nondietary U.S. soft drinks and most fruit drinks and that consumption of the corn-syrup sweetener rose more than 1000 percent from 1970 to 1990. Researchers reviewed consumption records from the Agriculture Department from 1967 to 2000, then combined those data with previous research and their own analyses. As a result, they calculated that Americans 2 years old and older consume an average of 132 calories per day through HFCS. Even worse, they conclude that the top 20 percent of consumers of caloric sweeteners in this country ingest an average of 318 calories per day from HFCS. [View Source](#)

Influenza in US Military Basic Trainees, Oct-Dec 2003

29 March - The Naval Health Research Center (NHRC), San Diego, has been conducting population-based surveillance for febrile respiratory illness (FRI) at eight U.S. military basic training centers since 1998. FRI is defined as a respiratory illness with an oral temperature of 100.5 F or greater. During October - December 2003, 565 specimens were tested; 90 (15.9%) of which have been positive for influenza A. Four of the 90 cases (4.4%) occurred among individuals who had been vaccinated more than 14 days prior to illness; the other 86 were among individuals that had either not been vaccinated or were vaccinated less than 14 days prior to their onset of illness. Hemagglutinin gene sequencing has been performed on 8 (8.9%) of these samples, and all show the amino acid substitution characteristic of the A/Fujian/411/2002 strain. [Click here](#) for more information on FRI surveillance among U.S. military trainees. [View Source](#)

Nurse Shortage a Health Hazard

30 March - CBS News reported hospitals are trying to recruit and keep more nurses, with good reason: Too few nurses can cost patients their health and sometimes their lives, study after study shows. A shortage of nurses is a factor in about one-fourth of patient injuries or deaths in hospitals, according to the Joint Commission on Accreditation of Healthcare Organizations' 2002 report. The Institute of Medicine says long work hours and fatigue contribute to errors. Its November 2003 report recommends a ban on nurses working longer than 12 hours a day. A 2002 study by Harvard and Vanderbilt university researchers, examining millions of 1997 hospital cases, found preventable deaths and patient complication rates were up to nine times higher in hospitals where the most care was given by licensed practical nurses and aides, not better-trained RNs. For each additional patient over four assigned to a nurse, the risk of dying after surgery rose 7 percent, according to a 2002 survey of 168 Pennsylvania hospitals by Linda Aiken, director of the Center for Health Outcomes and Policy Research at the University of Pennsylvania School of Nursing. [View Article](#)

Drug Overdoses Fuel Jump in U.S. Poisoning Deaths

25 March - Reuters reported illicit use of heroin, cocaine and other drugs helped fuel a dramatic rise in the number of accidental and unexplained poisoning deaths in the United States, health researchers said on Thursday. The fatality rate from poisoning, excluding suicides and murders, rose an average 145 percent between 1990 and 2001, according to data collected by 11 states and published by the Centers for Disease Control and Prevention. Narcotics and hallucinogens accounted for 51 percent of these deaths. There were 22,242 poisoning deaths in 2001 in the United States, 63 percent of which were unintentional. The overall death rate from poisonings -- either intentional or unintentional -- rose 56 percent between 1990 and 2001. [View Article](#)

USPACOM

Cambodian Sex Workers Threaten to Opt Out of Bill Gates-Funded Study

26 March - The Associated Press reported sex workers in Cambodia might opt out of a Bill Gates-funded study to test an HIV prevention drug if they don't get insurance that covers potential side effects, the leader of a prostitutes' group said. Health authorities were recruiting 960 sex workers in Cambodia for a one-year study of the drug Tenofovir DF, already used globally as an approved HIV treatment. When taken for treatment, the drug's side effects range from diarrhea and rashes to liver or

kidney failure, according to the U.S. health department. The women's network wants insurance to cover possible side effects for 30 years or more after the study ends. Cambodia has Southeast Asia's highest HIV infection rate, though it has dropped from 3.8 percent in 1997 to 2.6 percent in 2002. Participants would receive free health care during the study and would be closely monitored, he said. The project is part of the US\$6.5 million grant given by the Bill & Melinda Gates Foundation to Family Health International for studies in several nations to test a drug for reducing the HIV infection risk among sexually active adults regularly exposed to the virus. [View Article](#)

Dengue Fever on Rise in Vietnam

27 March – Yahoo News reported [dengue](#) has killed twice as many people in Vietnam this year compared to the same time last year, and the mosquito-borne disease may be just getting started here, state-controlled media reported Saturday. According to the Health Ministry, 5,371 people have contracted the disease so far in 2004, up 91 percent from a year earlier, the Thanh Nien (Young People) newspaper said; ten of those who caught the illness have died. More than 90 percent of the patients live in southern Vietnam, with about 1,500 cases in the southern commercial hub Ho Chi Minh City. [View Article](#)

Indonesia Dengue Fever Death Toll Climbs to 534

26 March – Reuters reported more than 530 people have died this year in Indonesia's [dengue](#) fever outbreak but government officials insisted the disease has subsided in most areas and has not hurt the tourist trade. The outbreak has alarmed health officials because the death toll is more than double the same period in 2003. A health ministry official reported that 44,027 cases had been recorded so far this year. The disease strikes annually during Indonesia's rainy season and is carried by the *Aedes aegypti* mosquito. The World Health Organization has said the outbreak was part of a five-year cycle common in tropical countries. Health officials have previously said the disease would peak in April, toward the end of the rainy season. [View Article](#)

Poor Hygiene Kills 500,000 Children Each Year in India

31 March – The Times of India reported according to a global report released on World Water Day, more than 500,000 Indian children die each year from poor hygiene (based on diarrheal disease rates). Nearly half of all children aged under five are not growing normally and the mortality rate for this group is 93 per one thousand live births. The report also indicates problems for Pakistan and Bangladesh. Pakistan loses 135,000 children to poor hygiene every year. Bangladesh sees 21,000 children dying each year and nearly half its children under five are not growing normally in terms of weight-for-age calculations. [View Source](#)

SARS in Hospital Emergency Room

01 April - The May issue of Emerging Infectious Diseases reports thirty-one cases of [SARS](#) occurred after exposure in the emergency room at the National Taiwan University Hospital. The index patient was linked to an outbreak at a nearby municipal hospital. Three clusters were identified over a 3-week period. The first cluster (5 patients) and the second cluster (14 patients) occurred among patients, family members, and nursing aids. The third cluster (12 patients) occurred exclusively among healthcare workers. Six healthcare workers had close contact with SARS patients. Six others, with different working patterns, indicated that they did not have contact with a SARS patient. Environmental surveys found 9 of 119 samples of inanimate objects to be positive for SARS coronavirus RNA. These observations indicate that although transmission by direct contact with

known SARS patients was responsible for most cases, environmental contamination with the SARS coronavirus may have lead to infection among healthcare workers without documented contact with known hospitalized SARS patients. [View Report](#)

South Korea: Lapses in Screening of Donated Blood

29 March - ProMED reports that South Korea's Red Cross mishandled donor information and circulated blood donated by hepatitis virus carriers, infecting 9 people. The Board of Audit and Inspection (BAI) called on the Korea National Red Cross to punish officials responsible for shipping blood donated by hepatitis virus carriers to hospitals and pharmaceutical companies for 5 years up until Jan 2004. A BAI audit conducted at the end of 2003 found that 76,677 units of blood received from donors who had been infected with hepatitis C virus had been distributed for transfusions or research by the Red Cross, a board official said. Nine people were found to have been infected with hepatitis during February 2004 after receiving blood transfusions from the Red Cross, the officials said. [View Source](#)

Vietnam Officially Declares Itself Bird Flu Free

30 March – Yahoo News Asia reported that Vietnam declared itself free of [bird flu](#) after one month without any reports of new outbreaks. Sixteen people in the country died from the disease when it made the jump from poultry to humans. A total of 24 people in Asia have died from the disease, with Thailand the only other country reporting human deaths, with 8 killed. Vietnamese government officials had forced the culling of some 38 million poultry, or some 15 percent of its industry, since the outbreak began. The news was greeted with caution by world health and agriculture officials. A spokesperson for the Western Pacific Regional office of the WHO found the announcement premature and unhelpful. [View Source](#)

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Panama: Another Case of Hantavirus Infection in Veraguas

26 March - ProMED reported that the Gorgas Commemorative Institute confirmed a third case of [hantavirus](#) infection in the Province of Veraguas, informed Ricardo Chong, Chief of Epidemiology of the Ministry of Health (MINSAs) in the Region. Chong mentioned that the case is a 36-year-old male resident of Rio de Jesus District. This is the first case detected in 2004 in this region. Chong stated that confirmation of a 4th case of hantavirus infection was in process in a female from El Cascajilloso in Arenas de Mariato. According to the clinical presentation, she has symptoms consistent with hantavirus infection. [View Article](#)

Predicting Geographic Variation in Cutaneous Leishmaniasis, Colombia

01 April – The journal Emerging Infectious Diseases published a study showing that approximately 6,000 cases of cutaneous [leishmaniasis](#) are reported annually in Colombia, a greater than twofold increase since the 1980s. Researchers investigated how well freely available environmental data explain the distribution of cases among 1,079 municipalities. For each municipality, a unique predictive logistic regression model was derived from the association among remaining municipalities between elevation, land cover, or both, and the odds of at least one case being reported. Land cover

had greater predictive power than elevation; using both datasets improved accuracy. Fitting separate models to different ecologic zones, reflecting transmission cycle diversity, enhanced the accuracy of predictions. The researchers derived measures that can be directly related to disease control decisions and show how results can vary, depending on the threshold selected for predicting a disease-positive municipality. The results identify areas where disease is most likely to be underreported. [View Article](#)

UN Population Fund Sends Medical Supplies to Violence-wracked Haiti

26 March 2004 – The UN News Center reported that faced with reports of increased sexual violence and the looting of clinics and hospitals during the sporadic conflict in Haiti, the United Nations Population Fund (UNFPA) has sent medical supplies to help victims of the confrontations there. The UN Population Fund's (UNFPA) representative in Haiti, Hernando Clavijo, said its airlift of drugs and supplies for safe childbirth and for the treatment of rape and sexually transmitted infections arrived yesterday in the Haitian capital, Port-au-Prince. The Caribbean country's health care system was stripped bare during the armed civil unrest that ravaged Haiti and led to the departure of President Jean-Bertrand Aristide. The reports of increased [sexual violence](#) were extremely troubling, not just for the physical and psychological trauma they inflict on women, but also because Haiti has the highest HIV/AIDS prevalence rate in the Americas, at 4.5 per cent, Mr. Clavijo said. As part of its HIV prevention, UNFPA was accelerating condom distribution, he said. [View Article](#)

Please contact the below-listed POC for suggested improvements and/or comments regarding this report. This report is also available on the USACHPPM website at <http://chppm-www.apgea.army.mil/Hiupdate/>.

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